

United States Patent [19]

Roncero

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[54] METHODS AND APPARATUS FOR OPENING CLOSED CONTAINERS

[75] Inventor: Jose I. Roncero, Richmond, Va.

[73] Assignee: Philip Morris Incorporated, New
York, N.Y.

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414/411

[58] Field of Search 53/381 R, 492; 414/411,
414/412, 414

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Primary Examiner—John Sipos

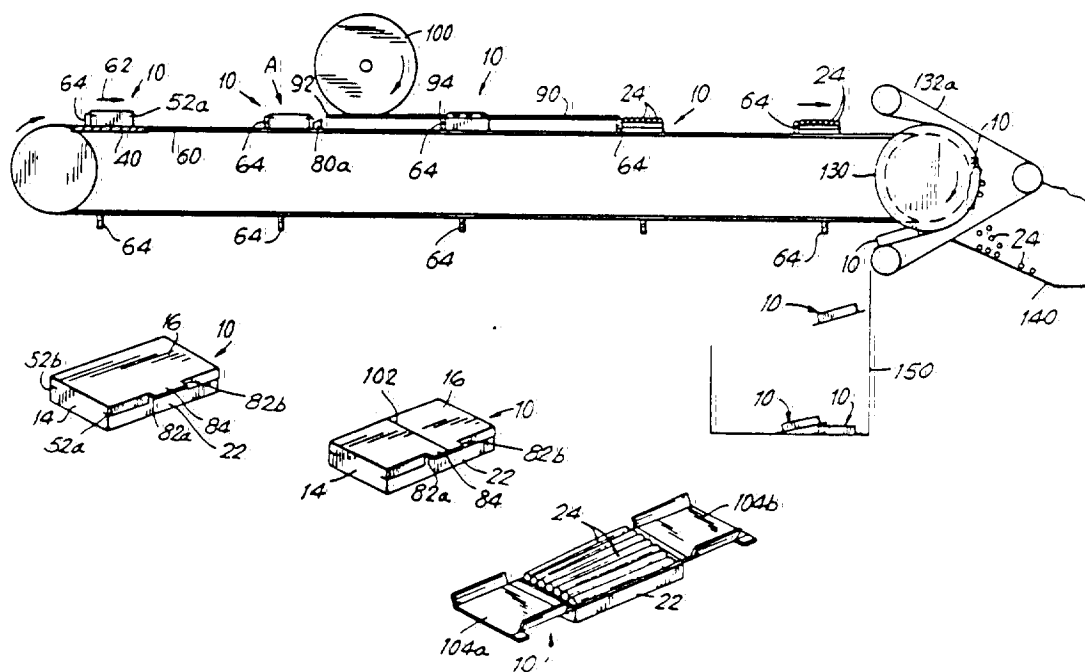
Assistant Examiner—Ann Tran

Attorney, Agent, or Firm—Robert R. Jackson

[57] ABSTRACT

Methods and apparatus for opening containers such as cigarette packages without damaging the contents of the containers. If desired, the methods and apparatus may be extended to include emptying the containers after they have been opened.

23 Claims, 10 Drawing Sheets



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